"Integration of Green Marketing and Sustainable Supply Chain Management: A Study of Select Modern B2B Industries in Maharashtra"

Synopsis submitted

To

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1. INTRODUCTION

Along with the proliferation of globalization over past two decades, sustainability has been transformed from a technical concept into the political and subsequently business mainstream. Sustainable supply chain management has emerged to address the triple bottom line (i.e. people, planet and profit) issues from the supply perspective of business and green marketing has emerged to identify and target socially and environmentally-conscious consumers, i.e. the demand side of business

In parallel, debates on environmentally-friendly and socially-responsible business have been widely undertaken from both demand and supply perspectives. Less attention has been given to green marketing's role in Sustainable Supply Chain Management (SSCM) and the impact of SSCM to green marketing strategies.

From the integrated management perspective, there is an urgent need to study the interface between green marketing and SSCM, so that company initiatives and practices with regard to sustainable development can be coordinated and synchronized, subsequently the supply side can better meet the demand side to maximize the overall business performance.

Existing research has discussed the interface between traditional marketing and supply chain management. In the past, when companies used to take a “make-and-sell” operations strategy, marketing was interpreted as “so basic that it cannot be considered a separate function. It was the whole business seen from the point of view of its final result, that is, from the customer's point of view. The definition implies that marketing should become an integral part of the supply chains and the integration can be implemented at the end of the supply chains.

Nowadays, companies take a new “sense-and-response” strategy, and marketing has evolved to include more functions, such as helping design the product and service, selling, forecasting and communication. Therefore, integration of marketing into supply chain management should take a multi-perspective approach, i.e. multiple integration dimensions should be investigated to achieve seamless integration.

Both concepts of green marketing and sustainable supply chain management have started catching attention of researchers and managers since last two decades and more so since last one decade. Nothing much has yet been researched and practiced about integration of these two concepts. Power of both the concepts can be leveraged with synergistic effect of the same. Hence, in the proposed research the researcher wants to conduct an empirical study on the integration of green marketing with sustainable supply chain management of automobile manufacturing companies in Maharashtra.

2. REVIEW OF LITERATURE

This section reviews related work addressing how companies have changed their operations to satisfy the society's renewed values and attitudes and how the environment has presented new opportunities to business. Particularly, the review will be focused on three sub-topic areas: green marketing, sustainable supply chain management (SSCM) and B2B integration.

Green Marketing

There are mainly three main views on various definitions of green marketing. The first view is linking green marketing to identifying and satisfying green customers, and promoting environmentally-friendly products (Banyte, Brazioniene, & Gadeikiene, 2010). Along the line of green customers, some researchers investigated the importance of using branding techniques to introduce green products to green markets (Muntean & Stremtan, 2010). It was found that most customers cannot easily identify greener products (other than clean products) although they would be in favor of greener products, and that most existing marketing strategies are not particularly relevant or engaging (Tureac et al., 2010).

A second view is built upon the classic marketing mix (i.e. the traditional 4Ps, standing for product, price, place and promotion) and brings together the triple bottom line objectives – people, planet and profit (Needle, 2010).

A third view argues that green marketing is beyond the role of linking to green customers and marketing mix, and should expand to include other aspects of corporate demand management, such as predicting demand for environmentally-friendly products, positioning and demand stimulation for recycled and remanufactured products, generating demand for build-to-order products, and building competitive advantages from a focus on environmental priorities (Sharma et al., 2010).

This third view shows clear indication of the integration of green marketing with other business processes in the forward and reverse supply chains (recycle and remanufacturing).

Sustainable supply chain management (SSCM)

SSCM is defined as "the strategic, transparent integration and achievement of an organization's environmental, social and economic goals in the systematic co-ordination of key inter-organizational business processes for improving the long-term economic performance of the individual company and its chains" (Carter & Rogers, 2008). Traditionally, there are restricted point of origin and point of consumption of products or services in the description of supply chains in literature (Svensson, 2007). The definition from Carter and Rogers implies that a broadened approach is required for SSCM, not only in emphasizing economic, ecological and social aspects of business practices and theories, but also in extending the scope beyond the restricted point of origin and end boundaries.

Most existing work in the area has discussed a number of more or less isolated and to some extent replicated aspects of SSCM, including corporate social responsibility, green/environmental purchasing, reverse logistics (e.g. the 4Rs – reuse, recycle, repair and remanufacturing) (Linton, Klassen, & Jayaraman, 2007), and life-cycle assessment. A conceptual framework was proposed to glue together the different aspects of sustainability in SSCM (Svensson, 2007). A main contribution of the framework is the definition of a multi-order supply chain which connects the point of consumption of the first-order supply chain to the point of origin in the second-order supply chain.

B2B integration

Carter and Rogers (2008) proposed an integration framework based on the triple bottom line and four supporting facets of sustainability (i.e. risk management, transparency, strategy and culture) and conceptualized potential business performance in three levels (i.e. good, better and best).

Second stream of work is on the integration of upstream and downstream activities in the SSCM. In this stream most work has been addressing co-ordination with immediate customers along with interaction with immediate suppliers, but left the integration with end customers (i.e. where external marketing occurs) remaining under veil (Vachon & Klassen, 2006).

Two generic types of integration have been defined: logistical and technological integration. Logistical integration is the extent to which co-operation in managing explicit information and material flows along the supply chains (Frohlich & Westbrook, 2001; Linton et al., 2007).

Different parties in the supply chains sharing technical and tacit knowledge in strategic areas (such as product development, process re-engineering and technical training) are defined as technological integration (Vachon & Klassen, 2006; Zhu et al., 2005). It was argued that the technological integration could provide more opportunities and potential benefits for all parties involved in the knowledge sharing in SSCM and green marketing. For example, assistance from green marketing by involving customers in the green product development, manufacturing and distribution can decrease the time-to-market time, which is in turn beneficial to customers.

3. OBJECTIVES

The researcher proposes following tentative objectives of the study.

1) To study sustainable supply chain management over traditional supply chain management for its merits and demerits.
2) To do comparative analysis of various integration model of marketing with supply chain management.
3) To study green marketing practices and sustainable supply chain management practices of select modern B2B industries in Maharashtra.
4) To study the scope for modern B2B industry in Maharashtra for integration of green marketing with sustainable supply chain management and suggest them an integration model for the same.

4. HYPOTHESIS

Based on review of literature following are the tentative null hypothesis for proposed research .

1) Green marketing has significant benefitted industrial marketing systems in terms of customer preference and customer loyalty.
2) Sustainable supply chain management has a significant advantage over traditional supply chain management in terms of better coverage of stake holders of the business.
3) Modern B2B industries in Maharashtra have initiated the practice of green marketing systems and sustainable supply chain management.
4) Modern B2B industry in Maharashtra have partially integrated green marketing with sustainable supply chain management.

5. RESEARCH DESIGN AND METHODOLOGY

Data required for this research will be collected by the researcher from primary data and secondary data sources. Primary sources are original sources from which the researcher directly collects data that has not been previously collected. The secondary sources consist of readily available and already compiled statistical statements and reports whose data may be used by researcher for their studies.

1. The primary source of data collection:

In this research the primary data will be collected through in depth interview using questionnaire.

2. The Secondary source of data collection:

The secondary data of this research will be collected from various research papers and published government norms on parameters of green marketing.

3. Selection of samples

Sample will be selected from automobile companies in Maharashtra. In the first step various industrial zones in Maharashtra are clustered and a sample of zones is selected from total number of zones by using formula

$$^{Zt}C_{Zi}$$

From these zones automobile industries are selected in sample out of all industries present in the zone by using formula

$$^{Zi}C_{Ii1,i2,i3\ldots in}$$

In selected automobile industries three levels of management viz. top management (strategic), middle management (managerial) and operational management (functional) are selected by using formula

$$^{Ii1,i2,i3\ldots in}C_{(l1,l2,l3)}$$

Number of sample points per industry are calculated by using formula

S_1 = Sample per industry ($l1$, $l2$, $l3$)

Total sample points (Sample Size) = $\sum (S_1, S_2, S_3 \ldots\ldots\ldots S_n)$

By using above mentioned statistical formulae the researcher proposes to select respondents from 10 companies as follows.

1. Classification of sample based on city (zone) :

Table 1: City wise selection of companies in sample

Sr. No.	City	No. of companies selected in sample	Out of total no. of companies
1	Pune	5	11
2	Baramati	1	1
3	Ahmednagar	1	1
4	Nashik	1	1
5	Aurangabad	1	2
6	Bhandara	1	1
Total		10	17

Source: https://en.wikipedia.org/wiki/List_of_vehicle_plants_in_India

2. Classification of sample based on Product Type

Table 2: Product wise selection of companies in sample

Sr. No.	Type of Product	Subtype of Product	No. of companies in sample (product subtype wise)	No. of companies in sample (product type wise)
1	Passenger vehicles	4 wheeler	5	5
2	Commercial vehicles	3 wheeler	2	4
3		HMV/LCV	2	
4	Two wheelers	2 wheeler	1	1
Total			10	

Source: https://en.wikipedia.org/wiki/List_of_vehicle_plants_in_India

Number of respondents per company will be 30 based on equal quota sampling method having following composition.

1. Top Management (GM and above) – 5
2. Middle Level Management – 10
3. Shop floor employees – 15

Respondents will represent various functional areas like marketing, supply chain management, production and operations management.

Total Sample size : 30 respondents from each company x 10 companies = 300 respondents (including 50 top level, 100 middle level and 150 shop floor employees).

Hence the researcher will select a sample size of 300 for proposed research.

4. Data analysis:

The collected data will be presented using various methods such as tables, graphs, charts and diagram as per the standard procedure of research methodology.

The data will be analyzed, inferred and concluded by using scientific statistical tools such as Excel, SPSS as suitably fit for the type of data according to scientific methods of research methodology.

6. PROBLEM STATEMENT

In the proposed research integration of green marketing and sustainable supply chain management is to be undertaken as to evaluate and confirm the concept at the end. Hence titled it as **"Integration of green marketing and sustainable supply chain management: A study of select modern B2B industries in Maharashtra"**.

7. SCOPE AND LIMITATIONS OF RESEARCH

The proposed research is confined to

1. The geographical region is restricted only to Maharashtra. The reason for this is that Maharashtra is a leading automobile industry hub in India.
2. The time period for the research will be from the year 2005-2015. The reason for this is that ISO 14000 norms came in force in India since 1997 and India started adopting to Euro norms of emission control from 2000. Considering these two time lines, Indian automobile industries took time till 2004 for gearing themselves up for proactive measures of being environment friendly. So the time of 2005 to 2015 is selected for the research here.
3. The research primarily focuses on integration of green marketing and sustainable supply chain management.
4. The research doesn't implicate with other managerial aspects of the organizations selected.

8. CHAPTER PLAN

Following will be the chapter plan of research thesis.

Sr. No.	Chapter no.	Chapter Title
1	1	Introduction
2	2	Literature Review
3	3	Research Methodology
4	4	Profile of Repondents
5	5	Data Analysis
6	6	Findings and Inferences
7	7	Recommendations and Conclusion
8	8	References

On the completion of this research work as per university rules the thesis in hard bound form will be submitted to the university in above pattern as per university norms.

Signature and stamp of Research Guide

Signature of Research Scholar

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